FUTURE ROLES FOR ACADEMIC HEALTH CENTERS*

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FOR the last three years Dr. Heyssel and I have been helping the Commonwealth Fund to think about ways academic medical centers can remain both vital and vibrant in the years to come under the system we have heard described today.

I think it important to note, as Dr. Lewis and Dr. Shepps have described, that academic medical centers are really a post-World War II phenomenon. Prior to World War II, although medical schools and the private voluntary hospitals associated with them performed academic research and teaching and gave medical care, it was not on the scale we see today.

I need not go into too much detail about what happened after World War II: we were fueled by absolutely enormous investments—the National Institutes of Health, for example, which started with practically nothing, had 20% real growth each year for nearly 20 years. Funds from the Hill-Burton Act built new hospitals and expanded existing ones. The second wave of real growth came with capitation which helped yearly graduates from American medical schools to more than double. Then Medicaid and Medicare came along to turn our previously voluntary functions into paying functions, and with that we quadrupled our house staffs and more than quadrupled our budgets. We had become phenomenally large, complicated corporations. And it has only been in the last six or seven years that we have begun to see a decline in the growth of those massive budgets.

What effect will the changes described over the past few days have on academic medical centers? To begin, we should define what we mean when we

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talk about academic medical centers. There are about 125 such institutions in the country where most clinical department chairmen also serve as professors in the medical school. In addition to those core institutions, another 300 or so are members of the Council of Teaching Hospitals, and all told about 1,200 hospitals do at least some teaching. I shall describe a little bit about what is happening in those core 125 academic medical centers.

To the question "Who's going to take care of high-risk patients?" We answer the major teaching hospitals, and we are doing so in increasing numbers every day. I just returned from the annual meeting of the Council of Teaching Hospitals, and, in contrast to other institutions, those 125 have generally seen an increase in admissions—an average of 1% across the country. My own institution has seen a 6% increase in admissions and an increase in case-mix intensity, measured by diagnostic related groupings, let alone by an accurate measure. This has meant an increase in volume-adjusted case mix of 32% over the past four years. Our institution has not had an empty bed on a Tuesday, Wednesday, Thursday, or Friday since Christmas. We are just one of five teaching hospitals in Boston experiencing the same problems.

Segregation of the severely ill—those most expensive to care for—is already happening in academic medical centers throughout the country. The other 300 members of the Council of Teaching Hospitals are more like community hospitals, reporting decreases in overall admissions and occupancy. This clearly suggests an increasing dichotomy between community hospitals and academic medical centers, not based on teaching; and it calls into question our old sense of the levels of hospital care. Rather than having primary, secondary and tertiary care, there may be community-level care—both inpatient and outpatient—and complex care—both inpatient and outpatient.

This creates quite a few dilemmas for us. One such dilemma is that most of us—at least the ones here on the east coast—are located in urban settings where there are many underprivileged people. But the kind of care our hospitals offer is increasingly inappropriate for the real needs of this population. The problem is compounded because regulatory pressures and cost-containment measures threaten to squeeze out our ability to serve the community as we have done in the past. All the more reason, then, to redouble our efforts to ensure that the needs of the people whom we serve continue to be met. The change to caring for more complexly ill patients, in addition to the pressures of deregulation and competition, may mean that these

institutions are no longer the most appropriate place to care for the uninsured. But we can and must continue our samaritan function, and be both advocates for those whom society is unwilling to care for and models for others to follow.

I believe the problem of care for the uninsured is being addressed, state by state, in ways sometimes creative and effective and in others short-sighted and insufficient, but there has been no real discussion of the equally serious problem of providing access to care for the chronically and complexly ill.

How are academic medical centers responding to this issue? One way is by becoming part of many alternative care systems. New England Medical Center has for five years had contracts with 10 health maintenance organizations throughout New England, and have a primary care unit of an independent practice association-based health maintenance organization. We have had success with our health maintenance organization contracts for tertiary care and difficulty being a cost-effective primary care unit.

One reason for this is that we are simply not organized to deliver this primary care, and another is that the case mix is all wrong. I am a primary care internist, and I speak from experience: we started a teaching hospital-based primary practice 15 years ago at the Massachusetts General Hospital, and the routine illnesses I saw there were such things as lupus, hyperthyroidism—in other words, patients came to institutions such as ours not for minor aches and pains but for serious illnesses. In our present primary care independent practice association we see the adverse risk selection of those with major illnesses. However efficient or well-organized we are, given the average capitation based on a mix of mostly healthy and some ill patients, we shall lose money in a major way.

We do not lose money on our tertiary contracts with other health maintenance organizations for the simple reason that community-based health maintenance organizations by and large are not equipped, able, or even particularly interested in taking care of the few complexly ill patients who come through their system. So for us to accept that responsibility is really quite a fair distribution of labor and resources. We have probably been at this business of tertiary care longer than most, and, as I am particularly interested in management control systems, we have fixed full risk contracts for tertiary care. That is to say, full-time medical staff and the hospital have a single contract with a health maintenance organization under which we shall do all of their tertiary care, buy reinsurance against our risk, and then manage all of those patients through all our facilities.

Like many of our sister institutions, we are developing a much more complicated system of outreach: we have a tertiary home care company, a pediatric nursing home, and are planning to open an adult nursing home with an Alzheimer's center. All of the modalities of care have become part of a complicated corporate environment, and we are learning about transfer pricing and net contributions to margins and overheads, and we now have a corporation that delivers almost 300 million dollars worth of health care each year.

What does this kind of work do to our other missions? Our community service mission cannot be overlooked, because, while we do all this tertiary care and outreach, we are also still a community hospital in a densely populated, multicultural urban center. We must also take into account our academic missions of research and training, and here the dilemma is that we can no longer continue to finance these missions as we have traditionally done.

Formerly, funding for research and training was built into the system: it came from excess patient care revenues. Society was quite willing to accept higher charges as the price for ensuring the continued training of physicians and research into the cause and treatments of complex diseases.

The purpose of regulation—not only in medicine but in such industries as banking, transportation, utilities—was not to control monopolies but to implement social policy. Regulation of the airline industry meant that even small towns could have service even though the routes might be unprofitable to the airline. And when these industries began to be deregulated, prices decreased, but marginally profitable or unprofitable services began to disappear. The same thing to a very real degree is happening to us in academic medical centers.

In medicine we are facing deregulation and the introduction of competition: not competition for patients necessarily, but competition on prices. Pressures on us to keep our prices down means that we do not have the excess revenues necessary to continue cross-subsidization of other socially useful functions.

The situation in Boston allows us to see the results of cross-subsidization quite vividly: as pressures have mounted, we have had to unbundle services. And what did we find? We found that research is a tub that rests on its own bottom. We run research institutes at the hospitals in Boston. The hospital does about $25 million worth of research, and the medical school does about $20 million in the basic science departments. The difference is

that the hospital does not get departmental overhead—money to support the teaching function. Yet we do still get all of the actual costs of the research we do.

And for all the brouhaha about the decline in National Institutes of Health funds, we should remember that in real terms the money has been increasing every year except between 1980 and 1984. And it continues to increase. The big debate now is really about the relationship between research funds and medical education. In the past it was clearly argued and acknowledged that good research was done at institutions like ours; those institutions also did the teaching and care for the poor; therefore, it was acceptable and understood that patient revenues and research would subsidize the other functions.

Today the prices that hospitals and physicians are paid in this competitive world no longer allow for excess revenue to subsidize medical education. But when we unbundle—separate the costs of various services—we see that the research enterprise is once again doing quite well.

Before I turn to the issue of education, I would also like to touch on my broader definition of what we mean when we talk about research. Many institutions that have traditionally conducted clinical research and public health research are now giving the same kind of effort to health management, systems, or health financing research. The Leonard David Institute at the University of Pennsylvania and the Center for Cost Effective Management at the Brigham and Women's Hospital are two examples of the financing side; New England Medical Center's work on the Management Project is an example of management systems research. But this kind of research, which I believe to be of great importance, is not supported by medical research funding agencies because if it cannot be done at a bench or shaken in a test tube, it isn't considered to be research.

As I noted before, I think that one of the most important issues facing academic medical centers is training and education. Few people realize how large the glut of physicians currently is—not because the service function of hospitals is dwindling—quite the contrary. But there is a growing mismatch between the number of physicians trained in medical specialties—including basic primary care specialties—and the actual demand for their services.

When one compares the numbers of a managed care system with the old

fee-for-service model, the average number of visits per patient is down from 6 to 2.2. The difference in the numbers comes, I think from the difference between private practice (which is the cottage industry of medicine) and group or managed care settings which are more efficient. Yet we are still training physicians geared toward that cottage industry model. My guess is that because of the changing shape of medicine, we are producing at least twice as many physicians as we shall be able to provide work for in the future. And it is the medical school, which is least able to reduce its expenditures, that suffers most from the end of cross-subsidization and the reduction of research overhead.

It also turns out that even when hospital charges do not increase, medical care costs still do. For example: ambulatory surgery, which many providers are turning to as a less costly alternative, is really no less expensive than inpatient surgery. All it really means is that the place of expenditure shifts and the overhead shifts.

If we were to halve the size of our medical schools, we could halve the size of our training programs. But if we do so, what impact would that have on the hospital's service function? According to some studies, 70% of a resident's time is spent performing services which the hospital would somehow have to replace were he not there. I would suggest that those service functions could be assumed by junior staff, in other words by some of those excess young physicians and suregeons. And as we know, in other industries when there is an excess in supply, prices fall. We do not necessarily have to pay high salaries to attract superbly trained and able young men and women. But we cannot expect those who do remain in training programs to study and to pay current prices for eight postgraduate years, and then send them out into a world in which their real earning capacity will be less than half what it was five or ten years ago. How this dilemma can be solved is not clear.

So when we look at academic medical centers for the near future, we can see that they will continue to deliver the highest quality patient care and continue to nurture and support research. Those objectives, I believe, will remain unchanged. What we must be vigilant about is that they continue their traditional mission of service to the community—perhaps in a different way. And the greatest area of change, which we must face, is the challenge of appropriately and adequately providing medical education.

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